

REMARKS

Claims 1-9 are pending. By this Amendment, claims 1-9 are amended.

An Election of Species was required in this application. Accordingly, Applicants elected Figs. 1-3, 5, 6, 9 and 10. Amended claims 1, 3, 4 and 7-9 read on the elected Figs. 1-3, 5, 6, 9 and 10. Claim 1 remains generic to all species. Applicants thus retain claims 2, 5 and 6 as these claims depend from claim 1. Applicants also request rejoinder of claims 2, 5 and 6 when claim 1 is found to be allowable, because claims 2, 5 and 6 depend from claim 1 and would thus be allowable for at least the same reasons that claim 1 is allowable.

Claim 1 was rejected under 35 U.S.C. §102(e) over Wilson et al. (Wilson), U.S. Patent No. 6,687,052. The rejection is respectfully traversed.

Wilson fails to disclose an optical microscope with a modifiable optical transmission screen comprising zones each presenting a first passing state and a second closed state, the modifiable optical transmission screen being placed on an optical path upstream from the object and generating in the object plane an image coinciding substantially with the spots of the object to be observed, as recited in claim 1.

Wilson discloses a confocal microscope wherein a mask 6 (which may be a spatial light modulator) is encoded with a predetermined pattern that modulates spatially, in a plane of the mask, the light from the first light source 1 (col. 3, lines 26-29). The mask 6 has transparent and opaque patterning that extends through the mask 6 from a first surface 6a to an opposing second surface 6b (col. 3, lines 33-35). The size of the patterning of the mask 6 is determined by the optical arrangement of the microscope to the extent that the patterning must be resolved on the object O (col. 3, lines 53-56).

Wilson thus discloses a microscope that produces images of an object without depth of focus. Light (from the light source 1) that crosses in a focal plane is filtered by the mask 6

(spatial light modulator). Only light that originates in one precise plane is recovered while light that originates in a distant plane is filtered. The mask 6 is thus placed in the focal plane of the confocal microscope. Because Wilson uses a confocal microscope and because Wilson places the mask 6 in the focal plane and not the image plane of the microscope, Wilson fails to generate in the object plane an image coinciding substantially with the spots of the object to be observed, as recited in claim 1.

In view of the foregoing, Wilson fails to disclose all of the features recited in claim 1. It is respectfully requested that the rejection be withdrawn.

Claims 1 and 3 were rejected under 35 U.S.C. §102(b) over Krause, U.S. Patent No. 5,587,832. The rejection is respectfully traversed.

Krause, similar to Wilson, fails to disclose an optical microscope with a modifiable optical transmission screen comprising zones each presenting a first passing state and a second closed state, the modifiable optical transmission screen being placed on an optical path upstream from the object and generating in the object plane an image coinciding substantially with the spots of the object to be observed, as recited in claim 1.

Krause discloses a confocal microscope wherein an aperture array 14 transforms illuminated light from a light source 18 into sequentially complementary patterns of illumination spots which are imaged on the specimen 20 by a dichroic beam splitter 22 and a microscope objective lens 24 (col. 3, line 63-col. 4, line 3). The corresponding conjugate aperture patterns are formed in front of a two dimensional detector to modulate the image and reject stray out-of-focus light indicated by broken lines at 36 from out-of-focus planes indicated by plane 38 (col. 4, lines 30-34). The aperture array 14 can be formed by an array of ferroelectric liquid crystal devices, by a digital mirror device or by electrostatic microshutters (col. 4, lines 46-49).

Krause, similar to Wilson, places the aperture array 14 in the focal plane of the confocal microscope. Because Krause uses a confocal microscope and because Krause places the aperture array 14 in the focal plane and not the image plane of the microscope, Krause fails to generate in the object plane an image coinciding substantially with the spots of the object to be observed, as recited in claim 1.

In view of the foregoing, Krause fails to disclose all of the features recited in claim 1 as well as the additional features recited in claim 3. It is respectfully requested that the rejection be withdrawn.


Claims 3 and 4 were rejected under 35 U.S.C. §103(a) over Wilson in view of Krause, claims 7 and 8 were rejected under 35 U.S.C. §103(a) over Wilson in view of Richardson, U.S. Patent No. 6,704,140, claims 7 and 8 were rejected under 35 U.S.C. §103(a) over Krause in view of Richardson, claim 9 was rejected under 35 U.S.C. §103(a) over Wilson in view of Richardson and Weiss et al. (Weiss), U.S. Patent No. 6,369,939, and claim 9 was rejected under 35 U.S.C. §103(a) over Krause in view of Richardson and Weiss. The rejections are respectfully traversed.

Richardson and Weiss fail to overcome deficiencies of Wilson and Krause in disclosing or suggesting the modifiable optical transmission screen, as recited in claim 1, as well as the additional features recited in claims 3, 4 and 7-9. It is respectfully requested that the rejections be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-9 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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